SECTION II: REMARKS/ DISCUSSION OF ISSUES

Claims 1-9 and 11-20 are pending in the application. Claims 1, 3, 5-7, 9, and 11-20 have been amended, and claim 10 was previously cancelled. Such amendments are fully consistent with and supported by the originally-filed specification.

The following identification of support for the amended claims is made with reference to U.S. Patent Application Publication No. U.S. 20060075458 ("the published application").

Amended claims 1, 5, and 6 are supported, for example, at page 4, paragraph 51 of the published application.

Amended claims 7 and 9 are supported, for example, at page 2, paragraphs 24-28 of the published application.

Amended claims 11, 15, and 19 are supported, for example, at page 1, paragraph 12, and page 4, paragraph 51 of the published application.

Amended claims 12, 14, 16, 18, and 20 are supported, for example, by FIG. 3 and also at page 4, paragraphs 50-52 of the published application.

A. Response to Rejections of Claims 1-9 and 11-20 under 35 U.S.C. 103(a)

The April 27, 2009 Office Action contained multiple rejections under 35 U.S.C. 103, namely:

- a rejection of claims 1-11, 14-15, and 18-20 as unpatentable for obviousness over Matsubara et al. (U.S. Patent No. 5,699,106; hereinafter "Matsubara") in view of Mori et al. (U.S. Patent No. 6,191,782; hereinafter "Mori") and further in view of Kondo et al. (U.S. Patent No. 6,763,522; hereinafter "Kondo").
- a rejection of claims 12-13 and 16-17 as unpatentable for obviousness over Matsubara, in view of Mori, in view of Kondo, and further in view of Seidman et al. (U.S. Patent No. 6,298,482; hereinafter "Seidman") and Dougherty et al. (U.S. Patent No. 6,198,509; hereinafter "Dougherty".

Applicants respectfully traverse these rejections in application to claims as amended herewith. Applicants respectfully submit that the combination of Matsubara, Mori, and Kondo do not disclose all of the features of the claims as amended herewith, and that Dougherty and Seidman are not properly combinable with Matsubara, Mori, and Kondo to yield the subject matter claimed by the Applicants, as discussed further below.

1. Matsubara, Mori, and Kondo Fail to Disclose All Features of Claims 1-9, 11, 14-15, and 18-20

Matsubara discloses an interactive program selecting system for use with a broadcast cable television system, and more specifically, an interactive program selecting system that can perform simplified channel selection[1]. In a previous Office Action, the examiner conceded that Matsubara did not disclose or suggest "displaying simultaneously marked portions of the interactive content and markers that mark the marked portions[2]." Matsubara also does not disclose or suggest displaying interactive content, specifically interactive subtitles, that contain a transparent background. None of the interactive subtitles displayed in or disclosed by Matsubara have any transparent background[3].

Mori discloses an apparatus and method for displaying a selected piece of image information in an interactive digital broadcasting system arranged to transmit signals for reception by a large number of terminal apparatuses[4]. Fig 15 of Mori is cited in the April 27, 2009 Office Action as "teaching means for displaying simultaneously marked portions of the interactive content and markers that mark the marked portions[5]." Fig. 15 of Mori depicts a flowchart of a cache manager that details how the terminal apparatus disclosed in Mori uses local memory storage to store certain navigation tables[6]. Fig. 15 of Mori does not depict interactive content or audiovisual content displayable by the terminal apparatus. Rather, Figs. 22A-22D of Mori depicts images as displayable by a terminal apparatus, with the images including interactive content (icons) superimposed on the underlying audiovisual content[7]. The interactive content

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[1] "The present invention relates to an interactive program selecting system suitable for application to an existing broadcasting type CATV (cable television) system and more particularly to an interactive program selecting system which can perform channel selection in a simplified fashion." (Matsubara, col. 1, ll. 5-10) "In this interactive program selecting system according to the present invention…" (Matsubara, col. 2, ln. 14)

[2] September 2, 2008 Final Office Action, pg. 3.

[3] See Figs. 6A-6B, Matsubara.

[4] "It is therefore an object of the present invention to provide a terminal apparatus and a method used therein for immediately displaying a desired piece of image information in an interactive broadcasting system upon request of the operator, where a large number of terminal apparatuses receive broadcasts in the interactive broadcasting system." (Mori, col. 1, ll. 60-65)

[5] April 27, 2009 Office Action, pg. 5.

[6] "FIG. 15 shows the flowchart of cache manager 17 in reading contents in advance… ." (Mori, Fig 15, col.4, ll.55-7)

[7] "FIG. 22A shows an interactive screen which is an image generated from presentation stream[1] with the icons of NVT[1] superimposed on the image; FIG. 22B shows an interactive screen which is an image generated from presentation stream[2] with the icons of NVT[2] superimposed on the image; FIG. 22C

depicted in Mori Figs. 22A-22D includes multiple items of interactive content (icons) superimposed over images of audiovisual content. These icons identify links to other available audiovisual content (e.g., other scenes, previews of coming attractions, interviews, with the actors, etc.), but similar to the interactive content disclosed in Matsubara, the interactive content disclosed by Mori also does not embody any interactive subtitle having that contain a transparent background[8].

Additionally, in the April 27, 2009 Office Action, the examiner concedes that neither Matsubara nor Mori teaches:

> "activating a further input of the command interface to select and display information associated with an item on the list displayed on the screen," and "in response to activating the further input, displaying the interactive subtitle including displaying simultaneously marked portions of the interactive content associated with the item of the list and markers that mark the marked portions.[9]"

Accordingly, neither Matsubara nor Mori discloses or suggests in combination both of the following features (A) and (B):

(A) "displaying the interactive subtitle, wherein the interactive subtitle has a transparent background and is superimposed on the audiovisual content"

and

(B) "activating the input of the command interface corresponding to the marked portion of the audiovisual content being displayed on the screen, and in response to activating the input, displaying information specific to the marked portion of the audiovisual content being displayed on the screen."

The foregoing features (A) and (B) are required by amended independent claims 1, 5, and 6 of the present application[10].

In the April 27, 2009 Office Action, the examiner alleges that Kondo teaches a system that "in response to activating an input" displays interactive content "including a list of the interactive subtitle, wherein the list has a transparent background and is superimposed on the

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shows an interactive screen which is an image generated from presentation stream[12] with the icons of NVT[12] superimposed on the image; FIG. 22D shows an interactive screen which is an image generated from presentation stream[43] with the icons of NVT[43] superimposed on the image…" (Mori, col. 5, ll. 3-16)

[8] See Mori, Figs. 22A-22D.

[9] April 27, 2009 Office Action, pg. 3.

[10] See Amended claims 1, 5, and 6.

interactive content, activating a further input of the command interface to select and display information associated with an item on the list displayed on the screen…[11]."

Kondo generally discloses a digital electronic program guide system and methods for providing updated program and system information[12]. More specifically, Kondo discloses a system for generating an up-to-date electronic program guide for digital television channels and displaying the program guide on a display screen[13]. Fig. 2B of Kondo depicts an electronic program guide including a list of available channels and television shows displayed as text with a transparent background so that the currently selected television show is displayed[14]. Fig. 2B of Kondo discloses a small area on the screen that includes general information about the currently selected television program, which information is not overlaid on the underlying broadcasted audiovisual content[15]. Kondo provides channel-specific (e.g., program) information to aid a user in selecting a desired program. Nothing in Kondo discloses a selectable interactive subtitle that is specific to a portion of a currently-displayed image. Kondo's information is not displayed as a result of "activating the input of the command interface corresponding to the marked portion of the audiovisual content being displayed on the screen," and does not contain "information specific to the marked portion of the audiovisual content being displayed on the screen," as required by amended claims 1, 5, and 6 of the present application[16]. Accordingly, Kondo fails to remedy the above-identified deficiencies of the combination of Matsubara and Mori in disclosing all of the features of independent claims 1, 5, and 6.

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[11] April 27, 2009 Office Action, pg. 4.

[12] "[T]his invention relates to a digital television electronic program guide system and method for providing updated program and system information." (Kondo, col. 1, ll.19-21)

[13] "The system of the present invention effectuates an EPG for DTV that dynamically detects changes in the broadcast status of minor and major DTV channels, and changes in their event information, prior to displaying the EPG information, thereby enabling the display of updated minor and major channels and event information on a display screen." (Kondo, col. 2, ll.14-21)

[14] "FIG. 2B shows an EPG as a transparent graphics overlying a video background 53' on at least a portion of the video display screen. The EPG of this embodiment includes a list of major channels including the presently selected major channel 51, a list of minor channels 50 actively broadcasting over the major channel, a movable cursor 55 for identifying and selecting an actively broadcasting minor channel, or for selecting another major channel. A system information panel 59 and event information panel 52 are also provided. Event information field 52 includes event scheduling for the presently selected minor channel 54 including event title 58, event starting and ending times 57, and related contextual information 62 for the presently highlighted minor channel 54 or event. A logo panel 63 permits displaying a logo 64." (Kondo, col. 6, ll. 41-54)

[15] (See feature **52** with information designated as feature **62,** Fig. 2B, Kondo)

[16] See Amended claims 1, 5, and 6.

Dougherty discloses a method and apparatus for allowing a user's reception component to identify broadcaster information.[17] Fig. 1, the only figure in Dougherty disclosing an example of the interactive icons used in the method and apparatus as disclosed by Dougherty, the interactive icons clearly do not contain a transparent background or correspond to a marked portion of the audiovisual application displayed on the screen[18].

Seidman is directed to a system for two-way digital multimedia broadcast services, including a variety of interactive applications. Seidman is directed to a viewer response system for two-way digital multimedia broadcast communications that provides a system for performing statistic gathering on viewer selection choices[19]. Seidman also discloses the feature of allowing a viewer of a program to select and modify data that is embedded in a program in order to retrieve items from a multimedia database[20]. Seidman does not, however, depict or disclose displaying an interactive subtitle with a transparent background superimposed on the audiovisual content and in response to activating an input from a command interface, displaying information specific to the marked portion of the audiovisual content being displayed on the screen.

Based on the foregoing, the proposed combination of Matsubara, Mori, and Kondo fails to teach all of the limitations of Applicants' independent claims 1, 5, and 6, as would be required to support an obviousness rejection under 35 U.S.C. 103 (i.e., pursuant to MPEP 2143.03). Neither Dougherty nor Seidman remedy the above-identified deficiencies of Matsubara, Mori, and Kondo in disclosing all elements of Applicant's independent claims 1, 5, and 6. Accordingly, withdrawal of the rejection of independent claims 1, 5, and 6 is warranted, and is respectfully requested.

Claims 12-13 and 16-17 all depend (whether directly or indirectly) from independent claims 1, 5, and 6, and inherently include all of the features of the claims on which they depend pursuant to 35 U.S.C. 112, fourth paragraph. As a result, dependent claims 12-13 and 16-17 are also patentably distinguished over the cited art for at least the same reasons as articulated above. Accordingly, the withdrawal of the rejections of claims 12-13 and 16-17 under 35 U.S.C. 103 is warranted, and is respectfully requested.

2. Seidman is Not Properly Combinable With Matsubara, Mori, and Kondo

[17] See Abstract, Dougherty.
[18] See Fig. 1, Dougherty.
[19] Seidman, Abstract, col. 3, ll. 11-20.
[20] Seidman, col. 3, ll. 41-46.

In the April 27, 2009 Office Action the examiner alleges that "it would have been obvious to one of skill in the art to use, to have selectable, numbered markers associated with a command interface, in order to provide customized interactive information based on the identified marker[21]."

It is well-established that a suggestion to combine references cannot require substantial reconstruction or redesign of such references, or a change in basic operating principles of a construction of a reference, to arrive at the claimed invention[22]. Moreover, if a proposed modification would render a prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification[23].

Seidman discloses an interactive viewer response system that includes capability for two-way digital multimedia broadcast communications[24]. Matsubara, Mori, and Kondo all disclose systems for interactive channel selection by receiving one-way digital broadcast transmissions[25]. Both Matsubara and Mori specifically teach away from the use of a two way interactive system due to the increased infrastructure and storage capability that is required for two-way interactive communication[26]. Accordingly, applying the two-way communication system of Seidman (which requires increased transmission and storage capability to achieve the desired interactivity and channel selection speed that Matsubara, Mori, and Kondo accomplish through a one way broadcast system) would render the systems of Matsubara, Mori, and/or Kondo unfit for their intended purposes – namely, to achieve rapid interactive program selection.

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[21] April 27, 2009 Office Action, pg. 11.
[22] *In re Ratti*, 270 F.2d 810, 123 USPQ 349, 352 (C.C.P.A. 1959).
[23] *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)
[24] "A system is presented for two-way digital multimedia broadcast services.." (Seidman, Abstract) "Referring now to FIGS. 2A and 2B, two components a provider component **206** and a reception component **234** are used to implement the graphical interactive information system in accordance with the present invention. The provider component allows generation and broadcast…" (Dougherty, col. 5, ll. 32-36)
[25] "In such a broadcasting system, the interactivity is achieved by one way transmission…" (Mori, col. 5, ln. 37) "The present invention has been made in light of the above and it is an object of the present invention to permit interactive selection through only a down-link line in the broadcasting system…" (Matsubara, col. 1, ll. 47-52) "The system of the present invention effectuates an EPG for DTV that dynamically detects changes in broadcast status… ." (Kondo, col. 2, ll. 14-16)
[26] "It is increasingly difficult to achieve the above system as the number of terminal apparatuses increases. This is because a number of communication lines need to be provided for transferring the transmission requests and image information. Such a construction may also suffer from an overflow in handling the transmission requests in the broadcasting station due to an overflow in the communication lines which are used for transferring the read requests and image information. Viewers may stop using such an interactive TV broadcasting system if it takes very long to display a desired image." (Mori, col.1, ll. 46-56)
"In the prior arts as above, however, when a program is desired to be selected interactively, two lines of a down-link line for distributing the program and information thereon and an up-link line for transmitting a request by a user to the broadcasting station are needed, giving rise to a problem that the existing equipment of the broadcasting station must be changed to a great extent."(Matsubara, col. 1, ll. 31-39)

For the foregoing reasons, the proposed combination Seidman with Matsubara, Mori, and Kondo fails to support the rejections of claims 12, 13, 16, and 17 under 35 U.S.C. 103. Accordingly withdrawal of the rejections of claims 12, 13, 16, and 17 is warranted, and is respectfully requested.

3. The Examiner Has Not Provided Articulated Reasoning With Rational Underpinning to Support Legal Conclusions of Obviousness

It is fundamental to a proper rejection of claims under 35 U.S.C. § 103 that an examiner must present a convincing line of reasoning supporting the rejection. MPEP 2144 ("Sources of Rationale Supporting a Rejection Under 35 U.S.C. 103"), citing *Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985). The Supreme Court affirmed the validity of such approach, stating that "**there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness**." *KSR International Co. v. Teleflex Inc.*, 127 S.Ct 1727, 167 L.Ed.2d 705, 82 USPQ2d 1385, 1396 (2007). In *KSR*, the Supreme Court further confirmed that **references that teach away from the invention are evidence of the non-obviousness** of a claimed invention, (*KSR*, 82 USPQ2d at 1395, 1399) and reaffirmed the principle that a factfinder judging patentability "should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning."

Following *KSR*, the Federal Circuit held that although "rigid" application of the "teaching, suggestion, or motivation" ("TSM") test for obviousness is improper, **application of a flexible TSM test remains the primary guarantee against improper "hindsight" analysis**, because a flexibly applied TSM test ensures that the obviousness analysis proceeds on the basis of evidence in existence before time the application was filed, as required by 35 U.S.C. § 103. *Ortho-McNeil Pharm. Inc. v. Mylan Labs., Inc.*, 520 F3d 1358, 86 USPQ2d 1196, 1201-02 (Fed. Cir. 2008)

In the April 27, 2009 Office Action, the examiner proposed the following reason for combining Matsubara, Mori, and Kondo to arrive at the subject matter of former claim 1:

> "[I]t would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, to display interactive content with a list superimposed as a transparent background with an active command interface, to display accurate, up to date event information regarding channels of interest to a user in a easy to use EPG format[27]."

[27] April 27, 2009 Office Action, page 4.

The foregoing proposed reason (i.e., "display [of] accurate, up to date information … in a[n] easy to use EPG format") is not inherently tied to Applicant's invention embodied in claim 1. For example, accuracy and timeliness of information and ease of use do not compel the steps of "displaying the interactive subtitle, wherein the interactive subtitle has a transparent background and is superimposed on the audiovisual content" or "in response to activating the input, displaying information specific to the marked portion of the audiovisual content being displayed on the screen." In this regard, the reasoning is not rationally related to the claim, such that the examiner has failed to provide "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness," as required by *KSR* to support an obviousness rejection of claim 1. It appears that the examiner has advanced arguments reliant upon "*ex post* reasoning" due to an improper hindsight bias based upon knowledge of Applicant's disclosure; the Federal Circuit has cautioned against such methodology (following the Supreme Court's *KSR* decision) in *Ortho-McNeil Pharm. Inc. v. Mylan Labs., Inc., supra.*

In the April 27, 2009 Office Action, the examiner also proposed the following reason for combining Matsubara, Mori, and Kondo to arrive at the subject matter of former claim 5:

> "[I]t would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, to display interactive content markers, in order to provide a user terminal that can immediately display image information in a broadcasting system upon request[28]."

[28] April 27, 2009 Office Action, page 5.

Again, the foregoing proposed reason (i.e., "display [of] image information in a broadcasting system upon request") is not inherently tied to Applicant's invention embodied in claim 5. For example, display of image information upon request does not compel the elements of "a processing unit adapted to insert the interactive content in interactive subtitles, including associating an interactive subtitle with a link table, the link table being an element of the interactive content, the link table relating an input of a command interface to a marked portion of the audiovisual content being displayed on the screen displaying the interactive subtitle, wherein the interactive subtitle has a transparent background and is superimposed on the audiovisual content" or "a display unit adapted to display information specific to the marked portion of the audiovisual content in response to activating the input of the command interface corresponding to the marked portion of the audiovisual content being displayed on the screen" as recited in Applicant's amended claim 5. ." In this regard, the reasoning is not rationally related to the claim, such that the examiner has failed to provide "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness," as required by *KSR* to support an obviousness rejection of claim 5. It appears that the examiner has advanced arguments reliant upon "*ex post* reasoning" due to an improper hindsight bias based upon knowledge of Applicant's disclosure, as has been acknowledged to be improper by the Federal Circuit in *Ortho-McNeil Pharm. Inc. v. Mylan Labs., Inc., supra.*

For at least the foregoing reasons, the rejections of claims 1 and 5 (as well as the claims depending therefrom, whether directly or indirectly) under 35 U.S.C. 103 should be withdrawn.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the now-pending claims are in condition for allowance. Examination of the enclosed claims and issuance of a notice of allowance are earnestly solicited. Should any issues remain that may be amenable to telephonic resolution, the examiner is invited to telephone the undersigned attorneys to resolve such issues as expeditiously as possible.

In the event there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

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